

INTERNATIONAL SEARCH REPORT

International application No.

PCT/FI 2004/050147

A. CLASSIFICATION OF SUBJECT MATTER

IPC7: F16F 7/104, F16F 9/19, F16F 9/44, F16F 15/02
 According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: F16F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6443273 B1 (LEDBETTER ET AL), 3 Sept 2002 (03.09.2002), column 3, line 58 - column 6, line 6; column 6, line 45 - line 67, figures 1-4	1-3,6-11
Y	--	4,5
X	US 5984233 A (SNYDER, JR. ET AL), 16 November 1999 (16.11.1999), column 3, line 57 - column 4, line 24, figures 3-5	1-3,6-11
Y	--	4,5
Y	US 6454063 B1 (OSTERBERG ET AL), 24 Sept 2002 (24.09.2002), column 3, line 16 - line 32, figure 2	4,5
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 Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search

3 February 2005

Date of mailing of the international search report

07-02-2005

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	GB 468365 A (AUGUSTE LOUIS MARIE ANTOINE ROUY), 30 June 1937 (30.06.1937), page 2, line 84 - line 103, figure 2 --	4,5
X	EP 1060932 A2 (VOLKSWAGEN AKTIENGESELLSCHAFT), 20 December 2000 (20.12.2000), column 2, line 42 - column 3, line 34, figures 1-4 --	10,11
A	EP 0214825 A2 (FORD MOTOR COMPANY LIMITED), 18 March 1987 (18.03.1987), figure' 7, abstract -- -----	1

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US	5984233	A	16/11/1999	BR	9815024 A	03/04/2001
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